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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/837,476	04/18/2001	Jerry Prismantas	060783/P003US-10102074	9931

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EXAMINER	
NGUYEN, LEE	
ART UNIT	PAPER NUMBER
2683	

DATE MAILED: 12/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/837,476	PRISMANTAS ET AL.	
	Examiner	Art Unit	
	LEE NGUYEN	2683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 October 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. This action is responsive to the communication filed 10/16/2002.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 4, 6-7, 11-12, 15-16, 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Blair et al. (US 2002/0173271 A1).

Regarding claim 1, Blair teaches an RF data transfer system comprising: means for detecting (signal strength or other parameters, col. 4, paragraph [0042]) and characterizing RF interference (non-DSSS

interference or MMDS narrow band, col. 1, paragraph [0010] and col. 4, paragraph [0042] and DSSS interference or wide band ISM band , col. 5, paragraph [0043] and col. 1, paragraph [0011]) with said data transfer; and means for adjusting the RF transmission to avoid said interference (parameters, col. 5, paragraph [0046]).

Regarding claims 4, 11-12, Blair also teaches changing modulation rate (col. 5, paragraph 0046).

Regarding claim 6, Blair also teaches means for analyzing (see paragraph 0047).

Regarding claim 7, Blair teaches a method of reducing RF interference for unlicensed band transmission (ISM band, paragraph 0002), comprising the steps of: calculating characteristics of RF interference within a band of interest of an unlicensed band to arrive at an interference profile (paragraphs 0043 through paragraph 0044); and adjusting desired RF transmissions to accommodate said interference profile (paragraphs 0045 – 0048).

Regarding claim 15, Blair also teaches changing frequency (paragraph 0048).

Regarding claim 16, Blair also teaches changing channel width (paragraph 0047).

Regarding claim 19, Blair teaches reducing RF interference, comprising the steps of: monitoring an unlicensed RF band for extraneous RF signals (paragraph 0043, col. 5); breaking into interference types and determining characteristics of the interference (col. 1, paragraph [0010] and col. 4, paragraph [0042] and col. 5, paragraph [0043] and col. 1, paragraph [0011]); and selecting at least one action to reduce interference (paragraph 0046).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the

contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Blair et al. in view of Poyhonen (WO 93/22850).

Regarding claim 2, Blair fails to teach shifting a sequence of time slots. Poyhonen reduces interference in an RF communication system by shifting a sequence of time slots (time slot hoping, col. 12, lines 10-20). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Poyhonen to the communication system of Blair in order to maximize interference diversity.

7. Claims 3, 9, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blair et al. in view of Petranovich et al. (US 5,946,624).

Regarding claims 3, 9, 18, Blair fails to teach skipping or eliminating at least one time period in a sequence of time period. Petranovich teaches

that in order to reduce interference, skipping at least one time period in a sequence of time period (fig. 6, see T'1 of cell A). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Petranovich to the communication system of Blair in order to reduce interference.

8. Claims 5, 8, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blair in view of Hiramatsu et al. (US 6,463,261).

Regarding claims 5, 8, and 20, Blair fails to teach using an addition antenna for detecting interference. Hiramatsu teaches using an addition antenna 1 of an apparatus (fig. 2) for detecting interference from an undesired source in order to provide an offset timing communication between a desired source and the apparatus (col. 3, line 64 through col. 4, line 59). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Hiramatsu to the communication system of Blair in order to eliminate interference in the system.

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Blair in view of Smith et al. (US 6,366,573).

Regarding claim 10, Blair fails to teach reducing in time one of the slot during interference. Smith teaches reducing in time one of the slot during interference (col. 5, lines 57-59). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Smith to the communication system of Blair in order to save processing time.

10. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Blair in view of Lundby et al. (US 6,356,528).

Regarding claim 13, Blair fails to teach different antenna for transmission. Lundby teaches using different antennas 4, 6 for transmission (fig. 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Lundby to the communication system of Blair in order to enhance the reliability of communications.

11. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Blair in view of Chen et al. (US 6,215,777).

Regarding claim 14, Blair fails to teach different hub for transmission. Chen teaches using different hubs for transmission (col. 10, lines 15-56). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Chen to the communication system of Blair in order to increase available data rate.

12. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Blair in view of Lund (US 5,844,934).

Regarding claim 2, Blair fails to teach changing channel polarity. Lund reduces interference in an RF communication system by changing channel polarity (col. 22, lines 10-26). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Lund to the communication system of Blair in order to minimize interference.

Response to Arguments

13. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEE NGUYEN whose telephone number is (703)-308-5249. The examiner can normally be reached on 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WILLIAM TROST can be reached on (703) 308-5318. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

LEE NGUYEN Lee 12/19/02
Primary Examiner
Art Unit 2683